NASA DIRECT READOUT CONFERENCE (NDRC) WEBINAR

May 29, 2018

MINUTES

Purpose/Objectives of the NDRC Webinar Series
At 11:00 a.m. Brad Quayle (USDA FS GTAC) convened the first webinar of the NASA Direct Readout Conference (NDRC) Webinar series. He reviewed the purpose of the NDRC, activities to date, and objectives going forward. This webinar agenda featured two presentations:

- Fire Science Algorithms and Products Update for Low Latency Applications/Users, presented by Louis Giglio (NASA/GSFC); and

- Multi-angle Implementation of Atmospheric Correction (MAIAC), presented by Alexei Lyapustin (NASA/GSFC).

Mr. Quayle's presentation is available here:
http://directreadout.sci.gsfc.nasa.gov/files/ndrc_webinar/NDRC_Webinar_Series_20180529%20-%20Quayle_final.pptx

Fire Science Algorithms and Products Update for Low Latency Applications/Users
At 11:15 a.m. Mr. Giglio presented the current status of active fire algorithms for MODIS, VIIRS, Landsat, and Sentinel 2, and burned area algorithms for MODIS and VIIRS, availability of these algorithms for user implementation within NASA data processing frameworks and technologies, and availability of derivative science data products, including:

- VIIRS 375m Active Fire (VFIRE375_SPA)
- VIIRS Active Fire (VIIRS-AF_SPA)
- VNP-14 - VIIRS/NPP Thermal Anomalies/Fire 6-Min L2 Swath 750m (VNP-14)
- VNP14IMG - VIIRS/NPP Active Fires 6-Min L2 Swath 375m (VNP14IMG)
- Level 2 MODIS Active Fire Product (MOD14_SPA)

Mr. Giglio's presentation is available here:
http://directreadout.sci.gsfc.nasa.gov/files/ndrc_webinar/Giglio_NDRC_20180528.pdf

Multi-angle Implementation of Atmospheric Correction (MAIAC) Algorithm
At 12:00 p.m. Mr. Lyapustin presented the current status of the MAIAC algorithm for MODIS and VIIRS. MAIAC is a new algorithm that uses time-series analysis and processing of pixel groups for advanced cloud detection and retrieval of aerosol and surface bi-directional reflectance properties. MAIAC significantly improves the accuracy of atmospheric correction for northern latitudes and tropics—including the Amazon region—as compared to standard MODIS surface reflectance products.

Mr. Lyapustin's complete presentation is available here:
http://directreadout.sci.gsfc.nasa.gov/files/ndrc_webinar/MAIAC_NDRC_webinar.pptx

Questions and Meeting Wrap-up
At 12:40 p.m. Mr. Quayle addressed questions submitted by participants, as follows:.

From Vikram Elavarasan (Forest Survey of India):
Q: Are Landsat and sentinel real-time active fire data available for use currently, outside DRL? If so, please provide links to the data.

A: Landsat and Sentinel 2 active fire data are not operationally processed and distributed globally at this time. These algorithms were developed under a broader effort under the auspices of the NASA Applied Sciences Program or the *Development and application of spatially refined remote sensing active fire data sets in support of fire monitoring, management and planning*. The Landsat 8 algorithm is being used provisionally by several organizations that process and provide regional near real-time active fire detection data, including the USDA Forest Service, the Brazil Institute for Space Research and the CSIR Meraka Institute/Advanced Fire Information System in South Africa. Development is ongoing to integrate the NASA Landsat 8 active fire detection algorithm in IPOPP, provided by the NASA DRL, where it can be executed by users as a standalone algorithm or within the IPOPP data processing framework. The Sentinel 2 active fire detection algorithm is still being refined and has not been distributed to users at this time.

From Vikram Elavarasan:
Q: Could you please share the presentations?

A: Yes. Presentations and minutes from the webinar will be published on the NASA DRL Web Portal.

From Vikram Elavarasan:
Q: What is the latency of active fire swath data?

A: Properly equipped direct readout ground stations can process and make available Level 2 near real-time 1km active fire data from MODIS for their coverage area within 15 minutes of satellite overpass. Near real-time 750m and 375m VIIRS take a little longer to process due to the larger swaths and higher spatial resolution data. Please consult with direct readout ground stations in your region to determine if these data are generated and accessible. MODIS 1km and VIIRS 375m active fire detection are available globally from the NASA Land, Atmosphere Near Real-Time Capability for EOS (LANCE). These data are typically provided within 2 hours of acquisition.

Chris Boehm (Pinkmatter):
Q: Will there be a future NDRC meeting (NDRC-10)?

A: Plans for an NDRC-10 meeting are being discussed. At NDRC-9, the desire for an NDRC-10 meeting was expressed by participants. Potential locations and local partners to assist with co-hosting the conference are being identified. We view the NDRC webinar series as a valuable instrument in continuing dialog among the

near real-time community until the next NDRC.

Mr. Quayle invited participants to provide suggestions for future webinar topics. Suggestions submitted so far include:

- Disaster management/response using NRT data; and
- Day/Night Band (DNB) applications.

Mr. Quayle thanked Mr. Giglio and Mr. Lyapustin for their presentations, as well as the DRL for providing logistics support. Mr. Quayle invited participants to submit feedback and additional suggestions for future webinar topics to him directly via email, and encouraged participants to complete a post-webinar survey that would be disseminated via the Direct Broadcast users email alias. The survey is available at: https://www.surveymonkey.com/r/NDRC-May2018 Mr. Quayle adjourned the webinar at 1:00 p.m.

Next Webinar
The next webinar is planned for September 2018. Additional details will be provided.